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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,563	07/13/2001	Yu Sun	3123-367	2954
32093	7590	06/15/2004	EXAMINER	
HANSRA PATENT SERVICES 4525 GLEN MEADOWS PLACE BELLINGHAM, WA 98226			SNIEZEK, ANDREW L	
			ART UNIT	PAPER NUMBER

2651

DATE MAILED: 06/15/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/905,563

Applicant(s)

SUN ET AL.

Examiner

Andrew L. Sniezek

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20, 30, 33, 38-40, 42, 50 and 52 is/are allowed.
- 6) ☒ Claim(s) 21-29, 31, 32, 34-37, 41, 43-49 and 51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

The information disclosure statement filed 11/24/03 has been considered.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-29, 31, 32, 34-37, 41, 43-49 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants admitted prior art as discussed on page 1, line 10 – page 8, line 2 and on page 16, lines 10-11 in view of Patton III.

Applicants admitted prior art teaches a method that includes determining a velocity profile and moving the transducer from a starting track to a destination track using this profile, page 5. Applicants admitted prior art does not teach adjusting the deceleration of this profile based on the direction of travel of the transducer. Patton III teaches in a similar arrangement to provide a controlled deceleration (adjusting deceleration) when approaching a parking zone so that the actuator does not impact crash stops at high velocities (column 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Patton III in the arrangement of applicants admitted prior art so that the actuator does not hit the crash stops in an uncontrolled velocity. The claimed maximum track (claim 22) is deemed satisfied by the last track before the head enters the ramp as taught by the prior art. The limitations of claims 23-34 are also satisfied by the prior art when the ramp is located at the inner

or outer portion of the disk as described on page 2, lines 12-13. The limitations of claims 25-29, 31 and 32 are taught by Patton III as discussed in the previous office action (page 5 and 6), which is incorporated herein and would have been obvious to one of ordinary skill in the art to incorporate these features in applicants admitted prior art for reasons provided in the previous office action. Claims 34 and 43, although worded differently, substantially sets forth the same limitations as discussed above and therefore satisfied for similar reasons. The additional limitations directed to a spindle motor, actuator arm, ramp tab, ramp and voice coil motor as taught by applicants admitted prior art (figure 1). The limitations and rejections of claims 35-37 and 41 were discussed in the previous office action (pages 5-6). This rejection is incorporated herein. The limitations of claims 44-46 are taught by the admitted prior art as discussed on page 5 of the previous office action. The limitations and rejections of claims 47-49 and 51 are incorporated herein from page 6 of the previous office action.

#### ***Response to Arguments***

Applicant's arguments filed 3/8/04 have been fully considered but they are not persuasive. Concerning claims 21 and 34 applicant states that the admitted prior art does not teach the adjustment of the deceleration part of the profile based on the direction of travel of the transducer (claim 21) or based on the direction of travel of the arm (claim 34) and that Patton III only teaches a velocity profile used during a park operation not during a normal, non-park operation. Examiner agrees with this statement however claims 21 and 34 do not specifically set forth the adjustment of the profile occurs during a non-park operation, but instead that the adjustment is based on the travel direction. Such an adjustment is taught by Patton III. Concerning applicant's arguments concerning claim 43 applicant states that the admitted prior art

does not teach a second velocity profile different then the first velocity profile and that Patton III only teaches a velocity profile used during a park operation and not a normal, non-park operation. Claim 43 does not specifically claim that the second velocity profile occurs during a normal operation (seek). Patton III therefore satisfies this limitation as set forth.

***Allowable Subject Matter***

Claims 1-20, 30, 33, 38-40, 42, 50 and 52 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The reasons for allowance of claims 9, 12, 19,20, 30, 33, 38-40, 42, 50 and 52 were provided in the previous office action . Claims 1 and 13 a method of determining transducer velocities and corresponding apparatus that adjust /limits the velocity of the transducer during normal operations when moving toward a crash stop without adjusting/limiting the velocity when the transducer is moving in the opposite direction such that if the disk drive losses power during a seek, mechanical damage is prevented as set forth is neither taught by nor an obvious variation of the art of record. Claims 2-8, 10-11 and 14-18 inherit these limitations.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. O'Hara et al. teaches to adjust the maximum seek velocity and Lee et al. teaches adjusting actuator current for directional torque.

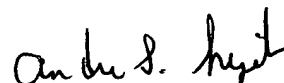
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Snizek whose telephone number is 703-308-1602. The examiner can normally be reached on Mon.-Fri..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 703-308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

  
Andrew L. Sniezek  
Primary Examiner  
Art Unit 2651

A.L.S.  
June 13, 2004